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ABSTRACT

Advocates of movie making believe that it provides a non-ethnocentric experience that is inherently engaging and relatively free from the risk of failure. Disadvantaged teenage boys who were attending two experimental summer work camps participated in studies of two aspects of movie making. The first study evaluated three different techniques for introducing movie making to the boys. The techniques ranged from simply making equipment and films available, to cursory instruction in movie making, to a maximum involvement situation with ongoing instruction, planning sessions, contests, and the immediate viewing of completed films. No significant differences in quantity or quality of the films were found among the presentations. The second study attempted to find a correlation between the content of the movies and the attitudes, personality traits, and behavior of the movie maker. Although the number of movies taken and their content were not found to be related to the personality of the individual movie maker, ratings of the quality of the movies showed a tendency toward such a relationship. This data would suggest the need for caution in viewing claims for the therapeutic value of movie making, however, the success of movie making must be considered in context as a possibly relevant and important social situation. (JY)

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A Study of the Introduction of Movie Making to Poverty Boys

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New York, New York

May, 1970

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SUMMARY

Movie making has found increasing acceptance as an innovative supplement to the academic curriculum and recreation programs. Advocates of movie making value this endeavor because it provides a non-ethnocentric experience that is inherently engaging and relatively free from the risk of failure. As such, it offers a particularly valuable experience for disadvantaged youngsters who are often "turned off" by more traditional educational experiences. For youngsters in general, and poverty youngsters in particular, it has been suggested that movie making is potentially psychotherapeutic and capable of providing an entree to more traditional education. It has further been suggested that there may be a valuable transfer of learning from visual literacy to literacy i.e., reading and writing.

Subjects for the research project were exclusively disadvantaged teen-age boys who were attending one of the three different five week sessions at the two experimental summer work camps operated by Sage Hill Camp, Inc. One camp session took place at the Montezuma, Colorado camp, and took boys from the Denver area. The second camp was located in Jamaica, Vermont, and took boys from Harlem in New York City. The study of movie making was incorporated into a larger evaluative study of the Sage Hill Camp program. (The program and the results of the evaluative study are discussed in detail in the final report to the U.S. Department of Labor for Grant No. 92-6-67-14). The camp program was a guided group interaction program for poverty youngsters. The boys actually built the entire facilities of the camp and had an active voice in the governing of camp affairs. They also were to be involved in year round follow-up activities.

The research project studied two aspects of movie making. The first was an evaluation of three different techniques for introducing movie making, and the second was a correlational study of the content, quality and number of the movies taken, and personality traits, attitudes, and behavior of the movie maker. In the experimental study of introducing movie making, it was hypothesized that the greater the involvement in the introduction of movie making, the greater would be the number of movies taken, and that these movies would be of better quality. Three degrees of involvement were used with three

different groups of campers. In the Colorado camp, the equipment and films were simply made available without any attempt to encourage their use. In the first of two five week sessions in Vermont, equipment was made available with cursory instruction in its use. Further assistance was available upon request. In the second session, maximum involvement was obtained with the use of ongoing instruction, planning sessions, contests to make the best movies, and the immediate viewing of completed films, etc. Only in the Vermont camp were subjects randomly assigned to either the moderate or intense involvement condition. The independent variable in this study was the degree of involvement in movie making and the dependent variable was the number and quality of films taken. Quality was determined by a scene-by-scene content analysis of the individuals' movies. Significant differences in the hypothesized direction were not found.

The second part of the study was a correlational study of the nature and extent of the relationship between the quality, content and number of movies taken, and the personality traits, attitudes and behavior of the movie maker. If movie making is potentially therapeutic, then at least the content of the movies ought to be related to the attitudes, personality traits and behavior of the movie maker. Without such a relationship, it is difficult to argue for the psychotherapeutic potential of making movies. Although the number of movies taken and their content were not found to be related to the personality of the individual movie maker, ratings of the quality of the movies showed a tendency toward such a relationship. This relationship was slightly in excess of what would be expected by chance at the .05 level of significance.

I. Review of the Literature

Primary and secondary school education in general and inner-city schools serving low income students in particular have been the object of severe criticism for their failure in the academic enterprise. They have been criticized for the irrelevance of their ethnocentric curriculum which is taught in an unimaginative and mechanical manner. Glasser (1969, p. 48-49) has commented on the effects of irrelevant curriculum:

> When relevance is absent from the curriculum, children do not gain the motivation to learn. As more complex studies come along in the later years of school, subjects that only motivated students can master, the children stand still and fail. We cannot depend on the natural curiosity of children to bridge the gap because too often it failed to do so, especially among those children whose backgrounds are different from those of the teacher.

Glasser (1969, p. 49) has in addition criticized school systems and teachers for failing to adapt teaching methods to the backgrounds of the ghetto children. Teachers need to be flexible enough to conform their teaching to the children's world rather than force the children to conform to their middle class world.

Kozol in his book, Death at an Early Age (1967, p. 187-188) has described a related problem:

> On a series of other occasions, the situation is repeated. The children are offered something new and something lively. They respond to it energetically and they are attentive and their attention does not waver. For the first time in a long while, perhaps, there is actually some real excitement and some growing and some thinking going on within that one small room. In each case, however, you are advised sooner or later that you are making a mistake. Your mistake, in fact, is to have impinged upon the standardized condescension in which the entire administration of the school is based. To hand Paul Klee's pictures to the children of this classroom and particularly in a $20.00 volume constitutes a threat to the school system...In such a manner many children are tragically and unjustifiably

> held back from a great many of the good things that they might come to admire and are pinned down instead to books that the teacher knows and to easy taste that she can handle. This includes, above all, of course, the kind of material that is contained in the Course of Study.

The potency of this condescension was demonstrated in Rosenthal and Jacobson's article, "Teacher Expectations for the Disadvantaged":

> At the end of the academic year, 1964-65, the teachers were asked to describe the classroom behavior of their pupils. The children from whom intellectual growth was expected were described as having a better chance of being successful in later life, and as being happier, more curious, and more interested than the other children. There was also a tendency for the designated children to be seen as more appealing, better adjusted, and more affectionate and in less need of social approval. In short, the children from whom intellectual growth was expected became more alive and autonomous intellectually, or at least were so perceived by their teachers...From these results it seems evident that when children who are expected to gain intellectually do gain, they may be benefitted in other ways...They go up in the estimate of their teachers. The opposite is true of children who gain intellectually when improvement is not expected of them. They are looked upon as showing undesirable behavior. It seems that there are hazards in the unpredicted intellectual growth.

Another important aspect of the educational experience which has been subjected to harsh criticism is the nature of the encounter between students and teachers. All too often, children, and ghetto children in particular, are treated in a demeaning, patronizing and condescending way. Children are often the object of sarcasm and humiliation. Embarrassing encounters are created by the teacher who calls on students in order to demonstrate their ignorance. In the context of such antagonistic and unfriendly encounters, it seems natural that the educational process becomes stymied. (Kozol, 1967, p. 12-16)

Some teachers, such as Kozol (1967) and Kohl (1968), through their tenacity, innovativeness and personal warmth seem to have

overcome the structural impediments and the pre-existing hostility of students, and have been able to create an atmosphere which is exciting, interesting, friendly, curiosity-arousing; i.e. conducive to the educational experience. There is a strong possibility that the people who engage in the innovative and exciting approaches to education such as visual literacy and movie making may also tend to be those people whose personalities are critical to the success of any venture. One of the goals of the research was to attempt to separate or partial out the effect of the personal credibility and relationship of individuals in movie making from the project of movie making in and of itself. In the "Hawthorn Experiments" personalities and relationships proved to be of greater importance on work levels than were noise level, lighting and working arrangements. The fact that workers were involved with management in a friendly and cooperative way and were the object of personal attention explained the increase in production rather than the changes in physical settings. (Roethlisberger and Dickson, 1939)

In the absence of systematic and "scientific" evaluation of the introduction of movie making to youngsters and particularly poverty youngsters, one must rely on a wide variety of popular articles.[1] These articles do not contain facts and figures about the quality and quantity of movies and the psychological and demographic characteristics of the movie makers. It is, therefore, difficult to evaluate, except impressionistically, the success of their ventures. Clearly it seems that a wide variety of effective and engaging programs exist which make movies with youngsters ranging from the affluent to the poor. The Johnson Center in New York City, The Film Club of Roger Larsen, The Bank Street School, the efforts of John M. Culkin, S.J. at Fordham University, the program of Reverend Robert Stoddard of the Tabernacle Church in Philadelphia, and the Henry Street Settlement House program of Susan Wood, etc., all seem to be effective, engaging and productive efforts in making movies with youngsters.

In the statements about the meaning of movie making for youngsters, one finds many claims for the importance of movie

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1 An annotated bibliography of known articles about movie making was prepared and is available from the author. In the interest of brevity this material has not been included in this report, but it is available for future researchers.

making for youngsters, and also many claims for the importance of movie making as an entree to more formal education, psychotherapy, enhanced self-esteem, and the creation of exciting movies.

In 1941, Eleanor Child and Hardy Finch wrote a book entitled Producing School Movies which was published by the National Council of Teachers of English. In an appendix of the book, over fifty schools throughout the United States are given that have established film making programs. The authors called for a controlled situation in which the instructor played an active role in the technical aspects of movie making and script writing.

MOVIE MAKING AS AN INHERENTLY ENGAGING EXPERIENCE

More recently, movie making has been espoused as an inherently engaging experience which is due to the mass exposure of children to television and movies. (Debes, May, 1968, p. 26-27) It is suggested that because of this prior experience movie making is an inherently engaging and satisfying experience. Gilbert (1967, p. 71) sums up the ease with which youngsters can be encouraged to make movies:

> Even youngsters who have never been exposed to film making have seen enough films and television to grasp quickly the elements necessary to tell a story of their own choosing on film.

Dart (1968, p. 96-99) expresses a similar opinion:

> Almost without exception students would like to make films. Therefore, teachers can assume that students will be motivated to study contemporary modes of expression and communication. Something exciting happens when the magic picture flickers on the screen. Inexpressible, nonverbal experiences begin to take shape. Suddenly students discover things they had never seen.

While his students in the Radio, Television, and Film Department at San Fransisco State College may be older, the author suggests that movie making is inherently engaging and satisfying for a wide range of the population.

Thus the previous exposure of children to the mass media of television and movies is considered one of the factors that facilitate the involvement of children in movie making.

NONPROFESSIONAL MOVIE MAKING AS ART

Claims, that seem well substantiated, are made that youngsters and particularly poverty youngsters often make excellent movies which are in and of themselves artistic, sensitive and able to communicate vital messages. Gilbert (1967, p. 71) in discussing the movie, "Not Much to Do" says,

> Thanks to Ben Achtenberg's care in keeping his own involvement limited to the amount necessary to insure photographic precision, the plotless film conveys its story with astonishing documentary clarity and emotional power. "Not Much To Do" records the joy of rolling down a grassy slope, the satisfaction of bone-bruising horseplay when a boy tests his muscles against those of his buddies, the fear of the policeman on the beat. But it also captures the feeling of togetherness when kids gather to break the rules, break the lock in order to break into life.

MOVIE MAKING AS AN EDUCATIONAL EXPERIENCE

Another set of justifications for film making suggests that movie making offers an alternative to an ethnocentric curriculum. Movie making can provide an entreb to more verbal and written types of educational experiences. An entire field of visual literacy has emerged which makes analogies between the grammar and syntax of visual experiences and the grammar and syntax of written and verbal communications. It has been suggested that the less encumbered visual literacy can act as an entreb to generalized literacy -- writing and talking. Debes (May, 1968 p. 27) has written about this prospect:

> We discovered that his visual language can also be a vital tool in making the spoken and written language more meaningful to youngsters at all age levels, for much of verbal language rests on earlier visual experiences. For example, some kids have a tough time with the concept that the sentence 'John hits Mary' stands for a physical action by real people; that the relationship described by the words parallels the relationship between the two people. However, if we pair the subject, predicate, and object elements of the written language with the corresponding elements in the visual language -- a picture of John,

> a close-up of John's hand slapping Mary's arm, a shot of Mary about to cry -- then the youngster, literally, can see the connection.

Another way the gaining of an entree to education is facilitated by the use of movies in that movie making evokes active participation as opposed to passive observation. Debes (May, 1968 p. 27) states,

> Just as we lead the student to develop from the passive role as listener and reader to the active one as speaker and writer, so we can transform a youngster from a(n) observer to a visual communicator.
>
> Margaret Mead, the cultural anthropologist, has commented that it is impossible to look through the viewfinder of a camera without selecting some aspect of the scene to photograph. This process of selection is a major part of what happens to a youngster when he makes a picture. He is forced to examine his environment and, in many cases, to realize for the first time the complexity of his surroundings.

Debes suggests that the critical viewing and analyzing of the environment which is inherent in taking pictures is relevant and valuable as an educational experience in and of itself.

Debes (January, 1969, p. 15) in speaking of visual literacy said the following:

> Of these forms of visual language, English, body English, is the most common. As a child, we learn to interpret it early. Babies learn to read it before they can speak. They have, in effect, a visual vocabulary before they have a verbal one. By the time a child reaches school age he has a very well-developed repertoire of body language consisting of facial expressions, gestures, body conformations, and other factors.
>
> He trusts his visual language more than he trusts the verbal language he has more recently acquired. If there is a conflict between what he reads in the visual language and what he hears in the verbal language, he believes the visual.

This suggests that the transition to verbal language can be facilitated if visual language is used as an introductory technique. Weiss (June, 1967 p. 74) in another article suggests the importance of visual over verbal language in the following statement:

> Emphasis was always on the problem and its visual solution, which in turn would bring the picture-taker a sense of achievement as well as an awareness of his new powerful medium of nonverbal expression -- both important to 'word-hostile' children for whom the verbal is more often associated with the proscriptions of authority than with the pleasures of shared communication.
>
> Within weeks this study group learned to probe, explore, wonder, think and create -- all by the squint of an eye and a stretch of the imagination. What's more, they had absorbed a bit of Euclid and Einstein, Clive Bell and Bridgman, as well as the application of Newton's Law to a dropped camera. Altogether not a bad report card for a six-week project.

Clearly these authors believe that it is valuable to capitalize on the pre-existing visual literacy and grammar in order to develop other types of literacy. Similarly the experience of looking through a view finder makes one more critical, can be a source of learning fundamentals, and can be a stimulant to developing an inquiring mind. For poverty children the non-ethnocentric character of active participation in creating movies is particularly valuable because they are likely to be intimidated by and antagonistic to the more middle class curriculum.

Debes (January, 1969 p. 14) summarizes his views:

> I do not wish to convey the impression that I feel that visual literacy is some kind of panacea. We know that some children are relatively speaking visual and some other children are relatively speaking haptic. We know, therefore, that these children will respond differently to opportunities to read and write visuals. However, initial indications are that all normal children seem to benefit from having visual literacy learning opportunities.

Given the all too often unhappy encounters of poverty children with the word oriented and often ethnocentric middle class school curriculum and teacher, visual literacy techniques hold out the possibility of circumventing this encounter in order to facilitate later acquisition of verbal skills. The extent to which it fulfills this promise remains to be determined.

MOVIE MAKING AS A THERAPEUTIC EXPERIENCE

Writers have suggested that the expression inherent in taking pictures is itself therapeutic psychologically. It is assumed that to express one's feelings is inherently good, and that visual language facilitates such expression. This is suggested by Debes: (May, 1968 p. 27)

> While the discipline of visual language may force a youngster to make selections from his environment, it also allows the observer -- the person who looks at the pictures -- to gain new insight into the concerns of the child. If a small boy takes a picture of an older boy sitting in a beautifully restored Model T, for example, he is not merely taking a picture of that youngster and that car. He is also saying that there is something about the situation that is of particular meaning to him; he wants to record the evident pleasure of an acquaintance, or he admires the possession -- and the "power" -- of an older boy.
>
> There are records of children shooting as many as fifteen pictures of policemen. Since the youngsters are small and covet power, their concentration on an authority figure is understandable. One child, in an experiment last summer, used all his film to take close-up pictures of adults. It happened that this youngster had been described by his teacher as relating poorly to adults. Clearly, he was attempting to make himself more comfortable with grown-ups by photographing them and then studying his visual record as often as he felt he needed to.

In this statement several assumptions are implied. One, the child's needs and private concerns will be expressed in his pictures, and this expression in and of itself is therapeutic. The second assumption suggests therapy works like Wolpe's (1966) technique of progressive desensitization.

Here aversive stimuli are desensitized by a series of approximations moving from the phantasy to the behavioral level. Debes implies that taking pictures of aversive situations helps in the process of desensitization by making the movie maker more comfortable with adults.

Forsdale and Litten in their "Pre-School Film Experiment" (January 1966, p. 103, 147-148) suggest that movie making is relevant to enhancing the self-esteem of poverty youngsters:

> It has long been recognized that children who suffer cultural deprivation place little value on themselves; after all, they are merely reflecting the worth assigned to them by others. For this reason, the staffs of both the Center and Project agree that the children gain a great deal from being able to make their own films with automatic equipment and from being free to pick whatever cartridge they like and project the film for themselves as long as they wish. They also agree that there is a profound advantage to these particular children in films produced especially for them -- "tailor made" for them to see themselves and their own surroundings more richly.

The views that movie making is inherently engaging, provides a non-aversive entreb to more formal education, reflects the psychological needs of the individual, provides a therapeutic outlet for expressing one's feelings, offers an opportunity to look at one's self as an object and to clarify one's own place in society and enhances one's self-esteem through a confidence-building and successful project is documented in Kodak's discussion guide, The Growing of a Young Film Maker. This discussion guide was intended for use with a film about a Raymond Esquilin who was a high school dropout, but who appears to have had an extremely positive experience for himself personally, and in the process to have produced some notable documentary movies. It is not clear how much of this involvement and success in movie making is due to the sensitivity, capability, concern, and commitment of the film club director, Roger Larsen, and how much is due to the specific experience of making movies. Similarly unclear is the extent to which his very idiosyncratic interest of "evoked potential" for movie making is typical of other youngsters. Without question he seems to have grown from the experience, and to have produced films which are artistically successful, (he won prizes

for his film "The Thief") and which reflect clearly his own dreams, ambitions, and frustrations. His long history of failure seems to have been turned around and he is now a successful full time instructor in teaching film making to people like himself on the lower East side. There seems to be little reason to question that film making can be for some individuals an important experience. An important question is to determine the extent to which Raymond's experience can be generalized to others, and to separate the results of movie making per se from the social milieu which Raymond enjoyed in his film making club. If the preponderance of his successful experiences are due to film making per se, education has come upon a veritable gold mine. Film making per se, while somewhat expensive, is readily transferrable and depends less on people and relies more on equipment and supplies. Given the short supply of competent and effective people who can relate in meaningful and productive ways to students, movie making would indeed by a blessing.

The task of this research project is to explore the generalizability of the movie making experience to other youngsters, and to estimate its relevance psychologically. These psychological questions are extremely difficult and in many cases are beyond the scope of this research. Psychotherapy has proved particularly difficult to evaluate. It stands to reason, therefore, that to evaluate the therapeutic potential of movie making, a less understood phenomena, is beyond the scope of this project. However, some evidence can be provided on the nature of the relationship between the content of movies and personality.

One aspect of movie making that is beyond the scope of this research project is the extent to which movie making with youngsters can provide an entree into more academic and verbal curriculum. As suggested above, movie making offers this potential, but the research project on movie making with poverty teen-agers in a summer camp setting cannot address itself to this question.

If movie making per se has potential as an educational and therapeutic tool, more data is needed on different techniques of evaluating the introduction of movie making to youngsters. Is it so engaging that one simply needs to make equipment available as suggested by Dart (1968, p. 96-99) or must it be introduced under controlled circumstances and with a great deal of technical supervision as suggested by Child and Finch (1941)? In order to examine the question of different techniques of

introducing movie making, three conditions of introduction were employed in the experiment.

Two studies suggest that the degree of involvement of youngsters in the the introduction of movie making is an important variable. Kelman (1961) delineates different levels of change as compliance, identification, and internalization. Internalization is relevant to the introduction of movie making because it suggests the degree of involvement necessary for one to reap the therapeutic and educational benefits in movie making. Kelman (1961, p. 65) describes internalization as follows:

> Finally, internalization can be said to occur when an individual accepts influence because the induced behavior is congruent with his value systems. It is the content of the induced behavior that is intrinsically rewarding here. The individual adopts it because he finds it useful for the solution of a problem or because it is demanded by his own values, in short because he perceives it as inherently conducive to the maximization of these values.

Studies have not been made specifically of the introducing of movie making, but it seems plausible that success in movie making whould be related to the degree of involvement in introducing movie making. Three degrees of involvement in movie making were studied and are described in the following sections.

In summarizing the literature, many of the problems raised by popular writings about movie making must be left unexamined, such as the therapeutic value of movie making, and its potential as a device to provide an entre'e into more formal education. The questions to which the study will be directed are, "Is there a relationship between the quality and quantity of movies made and the techniques and degree of involvement in introducing movie making to a group of poverty children?" A second question, while not directly related to examining the therapeutic value of movie making, will provide some relevant evidence to that question. Specifically the analysis of the content of the movie making will be related to a variety of psychological characteristics and measures of attitudes. If movie making is relevant psychologically to the individual, then minimally there should be some functional relationship between the movies that are shot and the personality of the movie maker. Only if such a relationship obtains can one logically consider the therapeutic value. Having sorted out these questions from

the many proposed justifications for movie making one must now devise an experimental design and instruments which can provide data relevant to these questions or hypotheses. The experimental design and instruments are discussed in the following section.

II. The Experimental Design

The research addressed itself to the testing of two hypotheses about movie making. (1) Specifically, it was hypothesized that the greater the degree of involvement in movie making, the greater would be the number of movies taken. It was also hypothesized that these movies in the more intense condition of involvement would be of better quality. (2) It was hypothesized that there would be a functional relationship between the movies made by the teen-agers and their personalities, i.e. attitudes, personality traits and behavior. Advocates of movie making have suggested that it is a potentially therapeutic experience. If this is true, one could assume that there would be a functional relationship between movies taken and the personality of the movie maker. If the personality traits of the movie maker and the content of the movies are not correlated, it is difficult to argue that movie making can be a therapeutic experience.

THE HYPOTHESIS: THE GREATER INVOLVEMENT IN INTRODUCING MOVIE MAKING LEADS TO MORE MOVIES OF BETTER QUALITY

The independent variable in this part of the study was the degree of involvement in the introduction of movie making. The three degrees of involvement can be arranged on a continuum ranging from simple exposure to movie making equipment to one of moderate involvement in movie making and finally to a condition of intense and structured involvement. In the first condition, referred to as the "laissez-faire" condition, (Montessori, 1964) unlimited films and cameras were made available to a group of sixteen poverty teen-agers attending the summer camp in Colorado. Movie making was not particularly encouraged by the staff. It was simply available. In addition, the developed films were never shown to the boys so editing and discussion of their movies were impossible. This group was included as a comparison group to determine the extent to which boys would pick up cameras and develop as movie makers without any particular encouragement. Some might argue that movie making is so engaging that if one simply makes equipment available, some creative individuals will develop into good movie makers. It should be noted that this "laissez-faire" condition only qualifies as a comparison group. Subjects were not randomly assigned to this condition as they were in the other two conditions. These boys

came from a different area of the country, and half of them had attended camp before and had been exposed to a previous movie making project. The camp in Colorado was completed and thus not comparable to the Vermont sessions which had extensive work projects underway.

The second and third conditions were the major thrust of the experimental design. Poverty boys were randomly assigned to come to five sessions in either July or August. This randomization made possible a more experimental evaluation of these two techniques of introducing movie making. In the first condition, a low key approach to introducing movie making was taken. Subjects were given cameras and films and provided with sufficient instructions to start them taking movies. These instructions familiarized the boys with the procuring of films and cameras, the loading of cameras, and the concepts of exposure, focus and composition. At this time, it was made clear that further instructions in movie making would be available from the movie maker who was at the camp for this research project. This instruction, however, was only available upon request which meant that the boys had to take the initiative in seeking help for their movie making efforts. Classes or prizes were not offered for movie making. Returned films were not shown to their makers. During the course of the first session, a documentary movie was in progress on the building of the camp, and boys were invited to participate in taking footage of the building of the camp and working with the film maker. Summarizing this condition, equipment was made available, and brief but adequate instructions were provided. Immediate viewing of the films was not provided; editing was not undertaken, and technical advice was only available on request. When advice was sought out, it was followed up and pursued. This situation was distinct from the third condition where advice was offered.

The third condition sought to maximally involve the youngsters in movie making. A small shadow box was built with benches for viewing the films. Boys were introduced to the technicalities of movie making in small groups or individually. The movie director sought to elicit as much interest and enthusiasm for the project as possible in these sessions. This was the one condition in which his own enthusiasm and skill as a teacher were unleashed. He tried everything possible to interest the boys in making movies. As a person he is a casual and relaxed individual with many creative abilities and a good sense of humor. He worked

well with the boys and presented movies as both a serious endeavor and one that could be fun. He actively sought to help and encourage the boys in the planning of movies. The films were developed as quickly as possible (usually four days) so that they could be viewed immediately and discussed with the project director. Prizes were offered for the best films made by individuals or groups of individuals. In general, movie making was encouraged maximally through the use of the active participation of the movie project director, the immediate playing back of movies, extensive discussions and instructions in movie making, and the offering of a variety of prizes. The offer was extended to have boys shoot footage of the camp and have their footage included in the documentary movie which was being made of the building of the summer camp. The planning and involvement in the 16mm. project was a facet of the attempt to maximally involve the boys in movie making.

Indirectly, the three conditions of involvement will provide some data on the effect of instructors on such projects as movie making. If movie making in and of itself is inherently engaging then without the benefits of charismatic instructors, the boys should be led by the very nature of the experience to producing effective movies which are psychologically relevant to their own personalities. If movie making does not appeal to a broad range of poverty youngsters then even the experience of intense, charismatic involvement should do little for engaging youngsters. Obviously, probably neither of these extreme conditions obtain, and differential responses should occur to the techniques of introducing movie making along the involvement continuum. A differential response should provide some data about both the effectiveness of different techniques of involving youngsters in movie making and the extent to which movie making per se is inherently engaging.

THE DEPENDENT VARIABLE: THE QUANTITY AND QUALITY OF THE MOVIES

The dependent variable in this study which was related to the independent variables of the different techniques of involving youngsters in movie making was the quality and quantity of the films taken by the youngsters. Super 8mm. films were chosen for the movie making project because they were less expensive than 16mm. films. They came in cartridges which could be removed from the camera. Each individual was given as many cartridges as he requested. The cartridges allowed the researchers to identify all footage shot by the in-

dividual. Films supplied to the campers were numbered and identified with the campers for later content analysis. While lacking the prestige of 16mm. films, these cartridges could be easily stopped, started and identified.

The quantity of movies was determined by the number of fifty foot Super 8 canisters of film which were checked out and used. The quality of film was determined on the basis of a content analysis of the exposed movie film. The content categories sought a compromise between the highly personal analysis of the individual's film versus broad categories of content needed to compare groups of people. Minimally the categories had to have sufficient data to provide a sample size which provides statistical power necessary for the comparisons (Cohen, 1962). Such an unavoidable constraint on the content analysis probably precludes identifying and measuring the highly idiosyncratic meaning of the content for an individual. Even if such categories could be devised, they would raise problems in the reliability of the categorizing. The unit for content analysis of the movies was an actual scene as determined by the opening and closing of the shutter for the exposing of the film. Scenes were usually identifiable because of the change in lighting, scenery and a variety of other indicators.

Numerous problems were encountered in the attempts to measure the length of each scene. Several approaches were tried and finally one was selected. This technique proved to be satisfactory, convenient and accurate. The film was run through a projector which was running at a constant speed. The projector and an electric stop watch were connected to a foot activated on-off switch. This timing device was accurate to 1/100th of a second. Every time the projector would stop by pressing the foot pedal, the clock also stopped. Then the number of seconds elapsed to the nearest 1/10th of a second was determined for the scene. After numerous practice sessions, the discrepancy of starting and stopping the film after identifying the end of the scene was reduced to a relatively few movie frames. In cases where mistakes were made, the film was reversed and the scene measured again. Once the movie film was measured, the timer was reset to zero and the next scene was measured. This system proved entirely acceptable and yielded an accurate measure of the length of each scene, and is recommended as a method of doing content analysis.

In addition to measuring the length of each scene, the researchers determined the content of each scene. Tally sheets were set up so that content and duration of the scene could be noted. The categories for content analysis were chosen to be concrete and readily discernable categories. The content analysis sought to determine whether the footage was of people or not. If people were shown in the scene, it was noted whether they were adults, boys or both. When people were photographed, their actions were also noted. It was determined whether the scene was of people involved in sports, work, recreation excluding sports, nature activities or fooling around. If people were involved, it was also noted whether the scene appeared acted. For scenes not of people, it was noted whether the scene was taken of plants, animals, scenery, tents, or buildings. A final category of useless films -- that is films in which the object of the film could not be seen -- was included.

The content analysis included four categories on the quality of the film. The first category was the accuracy of the exposure, and the second was the accuracy of the focusing. The third was the theme development, that is, the extent to which the shot or sequences of shots sought to tell a story or develop a theme. The fourth was an overall estimate of the quality of the specific scene.

While these categories are discrete and concrete, they tend to avoid the subtle distinctions in the scenes. This choice was necessarily made because of the need for highly reliable content analysis. In categorizing the films in the above categories, reliability between the research director and the research assistant was consistently above 90%. This was in fact due to the concreteness and discreteness of the content analysis categories.

These categories were selected after viewing many of the films. If the footage shot did reflect the personality of the movie maker, the somewhat gross categories should reveal differences in the interests and concerns of the movie makers. For example, if a person was aloof and disinterested in human beings, this might be reflected in his movies by his failure to take pictures of people. Similarly, if one was interested in fooling around and having a good time, this might similarly be reflected in his movies. It appeared difficult to maintain adequate reliability and at the same time introduce such categories as showing people in an inferred positive

mood, seeming to be angry, etc.

More complex ratings were made on the quality of the individual's scenes. Ratings were given to exposure, focus, quality and theme development. In the four categories, ratings were given on a one to three scale. The exposure was rated with a one for under-exposed, two for properly exposed and three for over-exposed. Focus was given a one if it was accurate, two if it was moderately inaccurate, and three if it was clearly out of focus. Theme development was given a three for highly developed, two for some continuity and one for little continuity within the scene or relation to contiguous scenes. This proved to be one of the most difficult categories to rate and reliability fell to the low eighty percents. The development of the theme had to be determined within the individual scenes and in relation to the previous and following scenes. This often entailed a replay of the entire sequence of the scenes. Had the movies been more seriously taken, this problem might have been greater. As it was, much of the contents of the films were disjointed scenes, and theme development was not particularly outstanding. The quality of the scene was an overall estimate of the accuracy of the exposure, focus and the ability of the series of contiguous scenes to tell a story. Scenes that were technically adequate and which attempted to tell a story were given a three and scenes that were of poor technical quality and showed little coherence were given a one. A final quality relevant measure was taken by simply counting the number of scenes which were taken. It was assumed that if too many short scenes were taken, the film would most likely be of poor quality, and if only one or two long scenes were taken without much internal organization and continuity, the film would also be of poor quality.

These categories of content analysis proved to be adequate, reliable, discrete and concrete. Every roll of film was coded with the name of the movie maker and its content analysis. The number of seconds devoted to each content category was determined. The total per category was then divided by the total

number of seconds of movie and a percentage calculated for each category of each film. The problem posed by the films that had been destroyed in developing was solved by averaging the percentages in each category for the different films. This provided an overall average percentage of film that was devoted to each category. This yielded a percentage for the amount of footage which did not show any people, which was further categorized into showing buildings, tents, scenery, etc. In this way, the content of the footage was converted to an average percentage of all the films taken by all of the individual boys and comparisons between boys having different numbers of films were made possible.

In summary then, a percentage for each of the content categories was determined for each individual for all the different films that he took.[2] This percentage was used in two ways: to determine the differences between the laissez-faire, moderate involvement and intense involvement groups, and to correlate the percentages with a variety of personality, attitudinal and behavioral measures. The ratings for the quality of the films were averaged over the different films, and thus a subject could have an overall average rating exposure of 1.5, a focus of 2.1 and an average of 16 discrete scenes per roll of film.

One final instrument was developed specifically for the study of involvement in movie making: an attitude scale about movie making. From a pool of items, forty-one items were selected to assess various facets of movie making. The forty-one items sought to determine the respondent's attitudes

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A delay in the granting of research funds limited the movie making project to four instead of five weeks for each of the sessions. In addition, eleven rolls of film were destroyed in developing. These films came from the session in Colorado and the first session in Vermont.

about the satisfaction of movie making in terms of producing quality movies, having fun taking movies, the artistic implications of movie making, and the technical problems in movie making. Items were also included about the extent to which the individual was willing to invest time and money for movie making. Using standard Likert scaling procedures, sixteen items were selected from the original forty-one items on the basis of face validity and the ability to discriminate between the extreme quartiles of subjects. When possible, reversed items were also included for the purpose of establishing construct validity. These sixteen items had a split half reliability on alternate items for the sample of twenty-one subjects of .86. This scale was administered at the conclusion of camp in the two sessions in Vermont. Because some boys left camp early and could not fill out the scale, only twenty-one subjects were available from the two groups. In terms of scaling criteria, the split half reliability of .86 indicates the adequacy of the scale in terms of reliability. The complete questionnaire is included in Appendix A. Those sixteen items used in the scale were presented in a six point agree, disagree, Likert format and are as follows:

5. Movie making could never be more than a hobby for me.
7. Movie making is more for women than for men.
9. A movie is one of the best ways of showing what the life around you is like.
12. I like fooling around with a movie camera, but would not want to do the work for a serious movie.
15. I would need the help of a good teacher before I could make a good movie.
16. Movie making is a lot of fun.
19. Only rich people can afford to make movies.
21. It would not be worth it to me to make a serious movie.
22. Most people do not know how easy it is to make movies.
23. I could never learn to use the kind of equipment that professional movie makers use.
26. I would rather watch a good movie than try to make one myself.
28. How hard is planning a good movie?
29. How hard is learning how to use the equipment?
30. How hard is getting the pictures in focus?
31. How hard is being sure that there is enough light for good pictures?

41. How many dollars would you be willing to pay for a movie making outfit?

The responses to these sixteen items were combined to form the movie making scale. These scores were included in the data on movie making and were correlated with the percentages for the different categories in the content analysis and the average ratings of quality of the scenes.

In summary, it was hypothesized that the greater the involvement in movie making, the more movies would be made and the better the quality of movies made. Comparisons of these variables will be made among the three different groups.

While differences in the content of the films could not be formulated into specific hypotheses, exploratory studies were conducted to determine if the different means of introducing movie making would be reflected in the content of the movie making. Thus the average percentages of different content categories were compared for the three groups. Scale scores on the movie making scale were also compared for the two conditions that occurred in the Vermont camp.

HYPOTHESIS II: THERE IS A CORRELATION BETWEEN THE CONTENT OF THE MOVIES AND THE PERSONALITY OF THE MOVIE MAKER

The second part of the study dealt with the more general notion that the movie making was in fact psychologically useful or therapeutic because it provided an opportunity to express and ventilate attitudes, conflicts, psychological needs and personality characteristics. If in fact movie making is a psychologically valuable experience, it follows that the content of the movies should be related to the personalities and characteristics of the movie makers. Thus an exploratory correlational study was undertaken to determine the nature and extent of the relationship of movies to specific personality and attitudinal characteristics. The content categories of people, no people, objects, etc. were correlated with twenty-one measures of personality characteristics on Cattel's High School Personality Questionnaire (1963). Fourteen of these personality characteristics are measured on a ten-points scale in terms of standard scores. Seven second-order factor and derived scores are also included in Cattel's High School Personality Questionnaire.

The High School Personality Questionnaire was selected because it covered a wide range of general personality traits. It is a factor analyzed instrument which seemed most appropriate for poverty youngsters because the content of the items appeared more relevant than a more culture bound and pathology-oriented scale such as the California Personality Inventory. The High School Personality Questionnaire has been used extensively in research and it is adequate with regard to the point of problems of reliability and validity. A description of these variables is found in Appendix B.

In order to determine the relationship of the movies to attitudes, scores of scales derived from the Teen-Agers Opinion Survey were correlated to the content of the movies. The Teen-Agers Opinion Survey was specifically developed for evaluating a program for poverty teen-agers. A pool of over 400 items was compiled covering various facets of attitudes about one's self, society, anomie and personal responsibility, etc. The scale was factor analyzed using principle components that were rotated to a verimax or orthoginal solution. The items defining these scales were then scored using unweighted item scores. These scales were used in both the Colorado and New York programs.

#1. This scale comprises a dimension that espouses the value of work in terms of providing satisfying and meaningful experiences and being a necessary prerequisite for achieving success and leading a good life. It has an optimistic quality which suggests that opportunities are available to improve one's status and live comfortably and meaningfully.

#2. This scale is made up exclusively of items regarding the personal responsibility of the individual. In such situations as getting a speeding ticket, going with a crowd that gets him in trouble, going on welfare, etc. is the individual considered responsible for getting himself in these difficulties, and is he responsible for solving these problems?

#3. This scale is composed of bipolar adjectives presented in a semantic differential format. It is essentially an evaluative dimension which includes such adjectives as good-bad, smart-stupid, useful-useless, etc. On this scale the respondent rates how he feels adults would evaluate him.

#4. This scale assesses the potency of group action for such things as ending wars, stopping police brutality,

changing the laws so they are fair to all people, etc. A high score on this scale indicates that the individual feels that groups can be effective agents for social change.

#5. This scale is one which assesses anomia or alienation. Items suggest that the world is indifferent and unkind to the individual, and that interpersonal relations are cynical and opportunistic. It further suggests that the individual is passive when compared to the forces of fate that control him. It characterizes interpersonal relations as Machiavellian and anti-humanistic.

#6. This scale is a self-esteem scale, and is composed of eleven bipolar adjectives. These items are the same as the adult's view items which are essentially an evaluative dimension.

These six reliable and valid attitude scales were correlated with the content analysis categories of movie making and with measures of the quality of movies taken.[3]

The final group of variables that were correlated with the quantity and quality of the movies made were behavioral. These variables include ratings by the staff on psychiatric impairment, interpersonal skill, skill as a worker, liking of camp, being changed by camp, potential as a junior counselor, chances for upward mobility and being liked by the staff. Other behavior variables include the sociometric status of the movie maker. His status was defined in three different situations. They are (1) his popularity as a tent mate, (2) his popularity for being chosen to work on a project with and (3) his popularity for being chosen to go on a camping trip with.

Other behavioral variables which were correlated to quantity and content of the movies include performance on a ring toss experiment, and the estimated performance that the movie maker would score as estimated by the group. The age of the boy and whether he had returned to camp in succes-

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[3]The items defining the individual scales and the psychometric characteristics of the scales, i.e. split half reliability and test-retest correlations, are available from the author.

sive years were correlated also. Finally, a point by serial correlation between the movie variables and being Black or Spanish was computed. In summary, the content, quality and quantity variables in the movie making study were correlated with twenty-one measures of personality characteristics on Cattel's High School Personality Questionnaire and six attitudinal dimensions from the Teen-Agers Opinion Survey and twenty-nine behavioral variables.

These variables were correlated with the average percentage of footage that was devoted to the following types of scenes: 1. buildings, 2. tents, 3. scenery, 4. animals, 5. plants. In regard to the activities of the individuals filmed, they were correlated with whether the footage appeared to be acted and whether the individuals were involved in the following activities: 1. fooling around, 2. nature activities, 3. recreation, 4. work.

The people in the footage were categorized, and average percentages were computed for the footage which contained adults and boys together, boys alone, adults alone and footage without people.

With regard to the quantity and quality of film, the following measures of quality of film were correlated with the psychological, attitudinal and behavioral variables. These ratings of (1) the amount of useless film, (2) the degree to which the theme is developed, (3) the accuracy of the focus, (4) the accuracy of the exposure and (5) an overall quality rating for each scene. The number of films used and the average number of scenes per film were also correlated with these variables.

In summary then, the research design sought to test two hypotheses: The first hypothesis is that there would be a greater number of films taken and that these films would be of better quality in the higher involvement conditions in which movie making was introduced to the youngsters. In other words, where youngsters were highly involved in the introduction of movie making they would take more and better movies. Youngsters in the moderate involvement and in the laissez-faire condition would be expected to take progressively fewer numbers of films and the films would be of poorer quality.

The second hypothesis tested the existence of a functional

relationship between the content of the movies taken and the psychological, attitudinal and behavioral characteristics of the movie maker. The existence of such a relationship would make more plausible arguments that movie making is potentially a therapeutic experience for the individual. If, however, the content and quality of the movie making is unrelated to his personality, it is difficult to argue for the potential of movie making as a therapeutic experience.

A small sub-study was included on the relationship between scores on the attitudes about movie making scale and the movies that the subjects made.

III. Results

RESULTS OF THE HYPOTHESIS STATING THE GREATER THE INVOLVEMENT IN MOVIE MAKING, THE GREATER THE QUANTITY AND QUALITY OF FILMS TAKEN

The means and standard deviations for all the movie making variables were computed for the three conditions in introducing movie making. F ratios were calculated for the laissez-faire, moderate and intense involvement conditions for introducing movie making. Where significant F ratios were found, T tests were computed to test the significance between the three different means. Sheffe (1960) has criticized the use of multiple T tests as being too lenient a measure for the test of significance between more than two means. This leniency was compensated for by the fact that T tests were only computed where a significant F ratio had been found. This procedure combined with the use of a more conservative level of significance is an acceptable way of counteracting the leniency of computing multiple T tests. The following table gives the means, standard deviations and N's for each of the three conditions in which movie making was introduced. These statistics are given for the quantity and quality variables of the films taken under the three different conditions. This results in seven separate one by three analyses of variance designs.

			Moderate	Intense	Laissez-Faire
Number of rolls of film	VAR 1	MEAN	2.154	2.615	2.750
		SD	0.890	1.193	0.683
		N	13	13	16
	F ratio = 1.563 p = .222				
Useless film	VAR 2	MEAN	3.115	10.677	10.025
		SD	7.713	7.855	10.319
		N	13	13	16
	F ratio = 2.995 p = .062				
Number of scenes per roll	VAR 3	MEAN	12.900 p=.008	13.985	20.562 p=.008
		SD	4.196	4.476 p=.023	8.925 p=.023
		N	13	13	16
	F ratio = 6.037 p = .005				
Exposure	VAR 4	MEAN	2.415 p=000	2.015	1.731 p=000
		SD	0.356 p=.019	0.451 p=.019	0.332
		N	13	13	16
	F ratio = 11.688 p = .000				

Focus	VAR 5	MEAN	1.862	2.015	1.906
		SD	0.437	0.398	0.362
		N	13	13	16
	F ratio = .520 p = .599				
Quality	VAR 6	MEAN	1.954	1.960	1.744
		SD	0.488	0.335	0.299
		N	13	13	16
	F ratio = 1.659 p = .203				
Theme Development	VAR 7	MEAN	2.131	2.185	2.094
		SD	0.461	0.351	0.377
		N	13	13	16
	F ratio = 1.188 p = .829				

Table #1 presenting the means, standard deviations and N's (number of subjects) on the quantity and quality of the films for the different degrees of involvement in introducing movie making. The F ratio and its probability are given for each variable in each of the three conditions. Where significant F's occurred the value for T is shown for the differences between the significantly different means. The means being compared can be identified by the identical probability for the T's as shown in the two conditions being compared.

The following are descriptions of the results of the seven different analyses of variance:

1. Number of films The Colorado laissez-faire condition boys took a mean number of 2.750 films, the moderate involvement group had a mean of 2.154 films, and the intense involvement group had a mean of 2.615 films. This yielded an F ratio of 1.563 which is significant at the .222 level. The number of films, therefore, did not significantly vary within the three groups and there does not seem to be an ordered relationship with regard to the degree of involvement.

2. Percentage of useless film In regard to the percentage of useless films taken, the Colorado laissez-faire condition had a mean percentage of 10.025% which was close to the intense involvement mean of 10.677%. In the condition of moderate involvement, the percentage of useless film was only 3.115%. This yielded an F ratio of 2.995 which has a probability of .062. While approaching statistical significance, this result does not seem to bear out the hypothesis that greater involvement leads to better quality of films since the moderate involvement group had the least useless film compared to the other two groups which were essentially the same.

3. Number of scenes per film The Colorado group did take significantly more scenes per roll of film having a mean of 20.562 in contrast to the moderate involvement mean of 12.900 and the intense involvement of 13.985. This seems to be related to the fact that the boys took a larger proportion of scenes of sports events at the Colorado camp. There was less opportunity for building and more in the way of sports and recreation during the Colorado session. It could be interpreted that this larger number of scenes per roll of film is an indication of poor quality, but such an interpretation is quite equivocal.

4. Accuracy of the exposure In examining the nature of the quality of the different films, we find that a significant F ratio occurred for the mean exposure rating. The Colorado group had a mean of 1.731 which indicates underexposure. The intense involvement group had an exposure of 2.015, and the moderate involvement group had a mean exposure rating which indicated overexposure of 2.415. This yielded an F ratio of 11.688 which is significant beyond the .000 level.

5. Accuracy of focus The accuracy of focus was essentially the same for all three groups. The means for the moderate group were 1.862, for the intense group 2.015 and for the laissez-faire group 1.90. This yielded an F ratio of .520 which had a probability of .599. There were no essential differences between the groups.

6. Overall quality In terms of overall quality the groups had means of 1.954 for moderate involvement, 1.969 for intense involvement and 1.744 for the laissez-faire group which yielded an F ratio of 1.659 which has a probability of .203. Again, there seemed to be no significant differences between the groups.

7. Degree of theme development In terms of theme development, the average rating for moderate involvement was 2.131, intense involvement 2.185 and laissez-faire 2.094. This yielded an F value of .188 with a probability of .892. All of the groups seemed to have moderately developed themes in the footage and they did not differ significantly.

Because of the exploratory nature of the study, F tests and T tests were computed for each of the content categories that were included in the correlational part of the study of movie making. Specifically, comparisons were made between the percentages of film in the categories such as

buildings, tents, scenery, etc. in the three different conditions. No apparent or meaningful trends occurred as a function of the degree of involvement in introducing movie making. However, this data is included in Appendix C.

SUMMARY OF DATA

Summarizing the findings with regard to the quantity and quality of films, there seems to be a lack of a trend which is related to the degree of involvement in movie making. Where occasional significant differences exist, they do not appear to be related to the degree of involvement. It should also be noted that the number of films taken per boy in all cases was rather small. The mean number was slightly more than two films per boy. A slight increase in the laissez-faire condition and the intense involvement group is apparent, but in terms of absolute numbers, the boys did not take many films. In general, it seems clear both from the experience of working with the boys in film making and the number of films taken, that boys were not particularly engaged by film making. There were many other activities which seemed to attract more attention. To the project director's knowledge, none of the boys have continued making serious films. Of the forty-two boys in different programs, none has bought a movie camera, or has asked through the year to use the movie camera belonging to the camp. Clearly, movie making is not so inherently engaging that it will attract boys by its mere presence. The degree to which interest can be generated remains unanswered. Thus, the null hypothesis that differences in the degree of involvement in introducing movie making was not related to the quantity or quality of movies made cannot be refuted on the basis of the above data.

HYPOTHESIS II: THERE EXISTS A FUNCTIONAL RELATIONSHIP BETWEEN THE PSYCHOLOGICAL CHARACTERISTICS OF THE INDIVIDUAL AND THE CONTENT AND QUALITY OF HIS MOVIES

An exploratory correlational study sought to determine the nature and extent of the relationships between the content and quality of movies and the personality of the movie maker. This study is based on data collected from twenty-six subjects in the two Vermont sessions.

If movie making per se is a therapeutic experience, it would seem that the content of the movies would be related to the movie maker's personality. The content ought

to reflect the movie maker's conflicts, needs, motivations, attitudes and behavior, etc. Such a functional relationship between the movies made and the personality of the movie maker must be established before movie making can be said to be therapeutic. Putting aside for a moment the question of whether or not such a hypothesis can be tested, we will examine the nature of the correlational data.[4] In all cases, high percentages of film devoted to the content categories or high quality ratings were related to high scores on the psychological variables, except in the case of negative correlations.

Clearly, the data precludes a refutation of the null hypothesis. In all, fifteen categories of content and four categories of quality ratings were correlated with the twenty-one personality characteristics from Cattel's High School Personality Questionnaire (1963), six attitudinal dimensions from the Teen-Ager's Opinion Survey and twenty-nine behavioral ratings.

The content categories included pictures that were taken of buildings, tents, scenery, animals and plants. Other content categories were concerned with whether the people in the pictures appeared to be acting, fooling around, involved in nature activities, involved in recreation, working or playing sports. Content categories also designated whether the scenes were of adults alone, boys alone, or adults and boys together, and finally whether there were no people in the movies.

The quality categories included the percentage of useless film, a rating of the theme development for each scene, a rating of the overall quality of each scene and a rating of the accuracy of the focus for each scene. In total, the correlation of the nineteen content categories or ratings with the fifty-six psychological variables yielded a matrix of 1,064 product moment correlation coefficients. By chance alone one would expect 53.2 statistically significant correlation coefficients at the 5% level of significance. In fact,

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[4]The correlational matrix of 1,064 product moment correlation coefficients resulting from the correlation of nineteen movie making variables with fifty-six personality variables has not been included in this report, but is available from the author. The statistically significant correlations are presented in Appendix D.

74 correlation coefficients were found to be significant at the .05 level for a two tailed test of significance.

Only one trend seemed to occur in the pattern of the correlation coefficients. By chance at the 5% level of significance, one would expect 42 statistically significant correlation coefficients in the matrix of fifteen content categories and the fifty-six psychological variables. In fact, 41 significant correlations were found out of the 840 correlation coefficients computed. These cannot be considered a chance occurrence. There did not appear to be any particular patterning to these statistically significant correlation coefficients.

In the quality categories -- that is, the categories of percentage of useless film, theme development, overall quality rating and accuracy of focus -- one would expect to find 11.20 correlation coefficients that are significant at the 5% level. However, in this matrix of 224 correlation coefficients, 33 were found to be statistically significant. This is 21.8 coefficients above what would be expected in a chance distribution of the significant correlation coefficients in this matrix. A test of the disproportionate distribution of significant correlation coefficients was computed using the Chi Square. The χ^2 value was significant beyond the .01 level. Clearly, the quality of the movies rather than the content of the movies was correlated with the psychological, attitudinal and behavioral variables of the movie maker. If movie making says something about the movie maker according to this data, it is not related to the subjects of his photographic attention, but instead to the quality of his productions. In short, people who take quality movies are different psychologically from those who do not take quality movies. This finding will be discussed in the discussion section of this paper.

THE OPINIONS ABOUT MOVIE MAKING SCALE

Another exploratory correlational study was undertaken to determine the relationship of movie making to the opinions about movie making scale. No significant correlations were found with any of the psychological, attitudinal or behavioral variables with scores on this scale. The following is a list of correlation coefficients between the movie making scale scores and the movie variables themselves: buildings .148, tents-.207, scenery-.080, nature activities .053, animals .424, plants .206, acted .115, people fooling around-.147,

recreation -.068, work -.092, sports -.098, adults and boys together -.100, boys alone .003, adults alone .024, no people .264.

The movie scale score was correlated with the quality ratings of the movies. The following are the correlations between the scale and the estimates of quality: useless film .2029, total number of films used -.149, theme development .048, overall quality rating .074, focus .049, number of scenes per roll of film .340. This scale has adequate psychometric characteristics; e.g., a split half reliability of .86. As has been noted by LaPaiere (1934) and many others since, this scale is essentially unrelated to behavior. That is, the attitudes expressed on the scale were not related to the content or quality of the movies made by the subject.

Another minor finding of the study was the lack of relationship between Cattel's High School Personality Questionnaire (1963) measure of creativity and all but one of the content categories and quality estimates of the films. Creativity was only significantly related to the percentage of film devoted to nature activities. This correlation was .431. The opinions about movie making scale was correlated -.073 with Cattel's measure of creativity.

These insignificant relationships create difficulties for a discussion of the results. The above results preclude a refutation of the two null hypotheses, namely that (1) different degrees of involvement in the introduction of movie making would not be related to the number and quality of films made by the movie maker and (2) there would not be a functional relationship between the content and quality of the movies and the personality, attitudinal and behavioral characteristics of the movie maker. Some explanations of the lack of significant findings will be discussed in the following sections as well as some interpretations that can be made from these findings.

IV. Discussion

In the absence of definitive data, discussion of insignificant results is necessarily speculative. In regard to the first hypothesis that a greater number of movies of better quality would be made the more youngsters were involved in movie making, some minimal conclusions can be drawn from this data. If one assumes that nothing more was done in the three different conditions then to simply expose boys to movie making equipment, one can conclude that there is little evidence from this sample of boys that movie making is so inherently engaging that the mere presence of equipment is enough to stimulate movie making activities. Forty-two boys were exposed to movie making, but they did not take large numbers of movies or particularly good movies. One minimal conclusion that seems tenable then is that simple exposure is not enough to engage youngsters in movie making.

Where it has been suggested that mere exposure is enough to start youngsters making movies one must consider other explanations. For example, were those boys who were simply exposed to movie making self-selected in some way and thus atypical? The problem raised by the social climate of the movie making group must also be considered. It may be that movie making per se is not engaging, but the nature of the group involved in movie making is engaging.

It seems to the author that claims that simple exposure to a mechanical device is sufficient to start someone on a creative and educational experience are unrealistic. In the case of movie making, it is doubtful that such an exposure would be sufficient for all but the most exceptional of potential movie makers.

It has been the experience of the summer camp program that permissiveness has not proved to be particularly fruitful for these poverty teen-agers. Permissiveness is often misconstrued as neglect. Permissiveness might be appropriate for youngsters who have been constrained by an overly structured and bureaucratic educational experience. However, this is not the typical case with poverty teen-agers. All too often they have been neglected and left to their own resources. The boys attending the camp have not taken the opportunities offered by permissiveness to start themselves on engaging and satisfying activities. In response to this lack of success with permissiveness, the program has become more structured.

This is intended to lead the boys to the point where they can make choices for themselves and shape their activities to their own needs. By limiting the number of choices available to them, it was found that the boys became more involved in activities. Such a structured starting point seems essential. Over and above the structured activities of the camp, limited permissiveness was offered. For example, an ever full lumber pile was available for anybody who was interested in building something. In summary, however, it was felt that sufficient structure was necessary to minimize the downside risk of inappropriate permissiveness. This was combined with free situations, and in this way the opportunities of permissiveness were available while the risks of failure and frustration were reduced. Regarding movie making, it would seem that instruction from competent instructors would be necessary in order to get youngsters to the point where they could participate actively on their own.

Originally, it was thought that the lack of differences in the experimental conditions may have been due to the competition with other activities in the summer camp. At the Vermont Camp sessions, boys were able to build, run a bulldozer and go on over-night hikes, etc. It may have been that movie making suffered in competition with these more engaging activities. In order to test this notion about the failure to greatly interest boys in movie making, a winter movie making project was implemented in New York City. All of the camp boys from the Vermont camp were informed of the project, and every effort was made to get them involved in the project. Only six boys participated in the movie making project and their interest was brief. This number of movie makers was not sufficient to make statistical comparisons to the summer camp sessions. Therefore, content analyses were not undertaken. Movies were immediately edited into a composite movie in an effort to show boys how larger movies are made, and thereby increase their interest. The failure of this project supports the conclusion that movie making did not become a popular activity for these boys even without the competition of activities in the summer camp.

If one can accept this minimal conclusion that movie making is not as inherently engaging as some have suggested, then one must consider other factors which contribute to the success of some movie making projects. These factors may include the social climate of the movie making group, a sample of youngsters who are predisposed toward movie making

and the charismatic qualities of the movie making project leaders, etc. In summary, this data raises some questions about the claims for movie making per se. Movie making would be a gold mine if the mechanical devices were in fact as engaging as claimed.

Turning to the second hypothesis that there is a functional relationship between movie making and the personality of the movie maker, one is again confronted with an absence of definitive findings. In the absence of significant relationships between the movies and the personality of the movie maker, it is difficult to argue that movie making is a therapeutic experience. All behavior and interests express things about the individual, his needs, his attitudes, his conflicts, etc. Granted that different activities permit the individual to express himself in different degrees of salience, it is difficult to argue that movie making offers an unexcelled opportunity for self-expression. Building, acting, peer rerelations, etc. all express aspects of the individual's personality. For some individuals, such as Raymond, movie making may be the ideal outlet for self-expression, but this may not be the best outlet for many others. Claims for the therapeutic value of movie making may be based on observations of individuals like Raymond, and Raymond may be atypical.

Even if movie making does express the individual's needs, etc. and expressing one's self is therapeutic (this is an important assumption for those who advocate that movie making is a therapeutic experience) then there is still a question as to whether this study could detect the private meaning that movie making had for the individuals. As discussed previously, the content categories had to be sufficiently large so as to be able to differentiate groups of individuals. A compromise had to be found between the gross and obvious categories which will not include sufficient numbers of people to make statistical comparisons possible. Small and precise categories also tend to depend on a high level of inference which creates problems for the reliability and validity of such a content analysis. For statistical purposes one is forced to accept the gross categories which may not be able to get at the private meaning of movie making for the individual. Such a private meaning might only be expressed in the more subtle aspects of the content such as whether people were smiling and friendly in their activities or hostile and unfriendly, etc.

In addition to the problems involved in the ability of the content categories to detect private meanings, the personality, behavior and attitude measures themselves while reliable and valid may be imprecise with regard to the highly idiosyncratic needs of the individual. The lack of precision possible with current methodology may preclude detection of subtle relationships. It should be noted that the results of the evaluation of psychotherapy have been equivocal. Psychotherapy which is understood better than movie making has eluded systematic evaluation. It may be that currently acceptable methodology is not adequate to assess psychotherapy and, in this study, to detect the relationship between the content of the movies and the personality of the movie maker.

The lack of relationship between the content and quality of the movies precludes a rejection of the null hypothesis that there is no relationship between movies and the personality of the movie maker. This data would suggest the need for caution in viewing claims for the therapeutic value of movie making. The burden of proof ought to lie with those who suggest that movie making in and of itself is therapeutic. If it is therapeutic, the mechanism by which the therapy works ought to be delineated. Is making movies therapeutic because it is an expressive activity, or does it work as a behavior therapy by desensitizing anxiety producing stimuli? Consideration should also be given to what types of individuals are suited to this type of therapy.

SUMMARY

The fact that the quality of movies was more related to personality than to content suggests that movie making is an ability which people have in varying degrees and that this ability rather than the content of movies is more related to the personality of the movie maker.

While the above data suggests that movie making per se is yet to be demonstrated as the critical variable in the success of the projects, there is no evidence that movie making should be dropped because of its failure to do what is impossible; i.e., engage youngsters, provide an entrée for education, and be therapeutic for them, etc. The important component in these functions of movie making is the people. Movie making is an activity which brings people together and as such is effective. To deprive people of what they

are comfortable in doing, have generated an interest in and centered their activities around is to deprive them of the vehicle which creates cooperation between youngsters and adults. These social relationships and mutual trust are facilitated by movie making, but not by movie making alone. Teachers do best in those areas which entnuse them, and thus movie making is critical for the success of these projects. The success of movie making, however, must be considered in the context of a very relevant and important social situation characterized by satisfying and valuable interpersonal relationships.

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APPENDIX A - OPINIONS ABOUT MOVIE MAKING

1. Movies are too complicated for most people to make.
2. Silent movies are almost as good as sound movies.
3. If I had a camera and enough film, I would take lots of movies.
4. Anyone with the right equipment can make good movies.
5. Movie making could never be more than a hobby for me.
6. It is very difficult to plan and make a really good movie.
7. Movie making is more for women than for men.
8. The equipment necessary for making a movie costs too much for most people.
9. A movie is one of the best ways of showing what the life around you is like.
10. Movie making equipment is too complicated for most people to understand.
11. I would like to take movies of my home and neighborhood.
12. I like fooling around with a movie camera, but would not want to do the work for a serious movie.
13. Movie making is an art, like painting.
14. Movie making is not very interesting.
15. I would need the help of a good teacher before I could make a good movie.
16. Movie making is a lot of fun.
17. Only artistic people can make really good movies.
18. I would be interested in a career as a movie maker.
19. Only rich people can afford to make movies.
20. Movie making is much more of a man's job than playing a violin.
21. It would not be worth it to me to make a serious movie.
22. Most people do not know how easy it is to make movies.
23. I could never learn to use the kind of equipment that professional movie makers use.
24. If I made a serious movie, I would want to show what life is really like, not how glamorous and exciting it can be.
25. I would sooner play my favorite sport than take movies.
26. I would rather watch a good movie than try to make one myself.
27. I wish my school had classes in movie making.

How hard are the following parts of movie making?

28. Planning a good movie.
29. Learning how to use the equipment.
30. Getting the pictures in focus.
31. Being sure that there is enough light for good pictures

32. Editing or putting together the films that you take.

The most fun about movie making is:

33. Trying to tell a story.
34. Seeing yourself and your friends in a movie
35. Taking pictures of your friends.
36. Just fooling around with the camera.
37. Carefully putting together the movie.
38. Did you ever use a movie camera before you came to camp?

Yes___
No ___

39. Does anyone in your family own a movie camera?

Yes___
No ___

40. Had you seen yourself in a movie before you came to camp?

Yes___
No ___

41. How many dollars would you be willing to pay for a movie making outfit? $_____

42. If you could make a movie about anything you wanted to, what would the movie be about.

43. What more do you think that you need to know about movies and movie making?

APPENDIX B

Twenty-one Variables on Cattel's (1963) High School Personality Questionnaire

LOW SCORE DESCRIPTION	HIGH SCORE DESCRIPTION
1. Reserved, detached, critical, cool. (Sizothymia)	Outgoing, warmhearted, easy-going, participating (Affecto-thymia, formerly cyclothymia)
2. Less intelligent, concrete-thinking (Lower scholastic mental capacity)	More intelligent, abstract-thinking, bright (higher scholastic mental capacity
3. Affected by feelings, emotionally less stable, easily upset, changeable (Lower Ego strength)	Emotionally stable, faces reality, calm (Higher Ego strength)
4. Phlegmatic, deliberate, inactive, stodgy, (Phlegmatic temperament)	Excitable, impatient, demanding overactive (Excitability)
5. Obedient, mild, conforming (Submissiveness)	Assertive, independent, aggressive, stubborn (Dominance)
6. Sober, prudent, serious, taciturn (desurgency)	Happy-go-lucky, impulsively lively, gay, enthusiastic, (Surgency)
7. Expedient, evades rules, feels few obligations (Weaker superego strengtn)	Conscientious, persevering, staid, rule-bound (Stronger super-ego strength)
8. Shy, restrained, diffident, timid (Threctia)	Venturesome, socially bold, uninhibited, spontaneous, (Parmia)
9. Tough-minded, self-reliand, realistic, no-nonsense (Harria)	Tender-minded, dependent, over-protected, sensitive (Premsia)
10. Vigorous, goes readily with group, zestful, given to action (Zeppia)	Doubting, obstructive, individualistic, internally restrained, reflective, unwilling to act (Coasthenia)
11. Placid, self-assured, confident, serene (Untroubled adequacy)	Apprehensive, worrying, depressive, troubled (guilt proneness)
12. Group-dependent, a "joiner" and sound follower (group adherence)	Self-sufficient, prefers own decisions, resourceful (Self-sufficiency)
13. Undisciplined, self-conflict, follows own urges, careless of protocol (Low integration)	Controlled, socially-precise, self-disciplined, compulsive (High self concept control)

14. Relaxed, tranquil, torpid, unfrustrated (Low ergic tension)	Tense, frustrated, driven, overwrought (High ergic tension)
15. Extravension	
16. Anxiety	
17. Coertertia	
18. Independence	
19. Neuroticism	
20. Leadership	
21. Creativity	

(45)

APPENDIX C - TABLE SHOWING MEANS, STANDARD DEVIATIONS, AND N'S OF CONTENT CATEGORIES BY LEVEL OF INVOLVEMENT

VARIABLE DESCRIPTION	VAR NO.		MODERATE GROUP	INTENSE GROUP	LAISSEZ-FAIRE GROUP
Buildings	VAR 1	MEAN	1.608	2.854	7.237
	F=1.770	SD	2.405	5.776	12.588
	p=.184	N	13	13	16
Tents	VAR 2	MEAN	3.115	3.931	4.544
	F=.214	SD	4.053	6.929	6.115
	p=.808	N	13	13	16
Scenery	VAR 3	MEAN	8.485	16.569	17.069
	F=1.718	SD	11.849	14.927	13.617
	p=.193	N	13	13	16
Animals	VAR 4	MEAN	3.262	9.746	11.856
	F=1.934	SD	5.353	11.324	15.779
	p=.158	N	13	13	16
Plants	VAR 5	MEAN	0.	1.169	0.319
	F=1.072	SD	0.	3.719	0.748
	p=.352	N	13	13	16
Acted	VAR 6	MEAN	6.446	4.692	0.
	F=2.140	SD	12.028	10.186	0.
	p=.131	N	13	13	16
Fooling Around	VAR 7	MEAN	55.692	25.885	31.312
	F=6.657	SD	30.962	14.925	18.878
	p=.003	N	13	13	16
Nature Activities	VAR 8	MEAN	6.354	8.823	4.750
	F=.498	SD	11.817	13.088	7.954
	p=.612	N	13	13	16
Recreation	VAR 9	MEAN	3.177	10.654	0.
	F=4.995	SD	6.032	15.359	0.
	p=.012	N	13	13	16
Work	VAR 10	MEAN	16.738	9.592	12.425
	F=.568	SD	20.861	12.468	17.328
	p=.572	N	13	13	16
Sports	VAR 11	MEAN	0.392	4.048	9.950
	F=2.037	SD	1.414	9.443	18.978
	p=.144	N	13	13	16
Both	VAR 12	MEAN	33.415	19.677	12.494
	F=4.539	SD	22.044	20.780	13.318
	p=.017	N	13	13	16
Boys	VAR 13	MEAN	31.315	35.254	42.781
	F=1.328	SD	21.505	18.291	18.315
	p=.277	N	13	13	16

Adults	VAR 14	MEAN	9.923	6.692	4.262
	F=1.918	SD	9.502	8.463	5.125
	p=.160	N	13	13	16
No people	VAR 15	MEAN	16.192	30.038	31.381
	F=3.351	SD	13.881	16.374	19.428
	p=.045	N	13	13	16

APPENDIX D

STATISTICALLY SIGNIFICANT CORRELATION COEFFICIENTS BETWEEN THE CONTENT CATEGORIES OF THE MOVIES AND THE PSYCHOLOGICAL, ATTITUDINAL AND BEHAVIORAL VARIABLES OF THE MOVIE MAKER. ONLY CORRELATION COEFFICIENTS WHICH ARE SIGNIFICANT AT THE .05 LEVEL FOR A TWO TAILED TEST OF SIGNIFICANCE ARE PRESENTED BELOW. THE ENTIRE CORRELATION MATRIX IS AVAILABLE FROM THE AUTHOR.

CONTENT OF FILM CATEGORIES.

1. Buildings--Buildings were not significantly correlated with any of the variables.
2. Tents--Tents were not significantly correlated with any of the variables.
3. Scenery--Percentages of film devoted to scenery was related to the following variables:
    a. neuroticism, .468
    b. personal responsibility, -.457
    c. pre-tent popularity, .406
    d. post-tent popularity, .684
    e. pre-work popularity, .464
    f. pre-trip popularity, .464
    g. raw score ring toss, .515
4. Animals--Percentage of films devoted to animals was correlated with the following variable:
    a. self-esteem, .411
5. Plants--Percentage of film devoted to plants was correlated with the following variables:
    a. tendermindedness, -.420
    b. anxiety, -.541
6. Acted--Percentage of film acted was correlated with the following variables:
    a. intelligence, .489
    b. interpersonal skill, -.420
    c. length of time at camp, .606
7. Fooling around--Percentage of film showing people fooling around was correlated with the following variables:
    a. self sufficiency, .547
    b. personal responsibility, .481
    c. perceived director's rating, -.564
8. Nature activities--Percentage of film devoted to nature activities was correlated to the following variables:
    a. self control, .419

b. creativity, .431
c. adult's view, -.587
d. pre-trip popularity, .613

9. Recreation--Percentage of film devoted to recreation activities was correlated with the following variables:
   a. perceived director's rating, -.540
   b. director-boy discrepancy, .485
   c. age, -.485
   d. raw score ring toss, .607
   e. own rank ring toss, .547

10. Work--Percentage of film devoted to people at work was correlated with the following variables:
   a. apprehensiveness, -.454
   b. change in sociometric status tenting, -.560
   c. change in sociometric status trip, .470

11. Sports--Percentage of film showing sports activities was correlated with the following variable:
   a. post-trip popularity, -.422

12. Adults and boys--Percentage of film devoted to adults and boys together was correlated with the following variables:
   a. doubting, -.465
   b. psychiatric impairment, .456
   c. raw score ring toss, .454

13. Boys alone--No significant correlations were found between this category and the psychological variables.

14. Adults alone--Percentage of film devoted to adults alone was significantly correlated with the following variables:
   a. pre-trip popularity, -.457
   b. change in popularity for tenting, -.489
   c. change in trip popularity, .457

15. No people--Percentage of film devoted to scenes without people was significantly correlated with the following variables:
   a. doubting, .444
   b. work skills, -.427
   c. pre-trip popularity, .534
   d. director's rating, .446
   e. average ring toss rank, .555
   f. own rank ring toss, -.476

QUALITY RATINGS

16. Useless film--The amount of useless film was correlated significantly with the following variable:
   a. apprehensiveness, .427

17. Theme development--Average rating for the development of themes in the footage was correlated with the following variables:

a. emotional stability, -.414
b. apprehensiveness, -.460
c. leadership, .498
d. pre-tent popularity, .468
e. post-tent popularity, .487
f. director's rating, .465
g. being Spanish, .482

18. Overall quality--Average quality ratings were correlated with the following variables:

a. outgoing, -.493
b. emotional stability, -.50
c. happy-go-lucky, .465
d. doubting, .417
e. apprehensiveness, -.548
f. leadership, .591
g. extroversion, .413
h. junior counselor potential, -.469
i. pre-tent popularity, .564
j. post-tent popularity, .411
k. change in work popularity, .416
l. raw score ring toss, -.516

19. Focus--Average focus ratings were correlated with the following variables:

a. outgoing, -.414
b. emotional stability, -.503
c. happy-go-lucky, .406
d. tender-minded, .413
e. extroversion, .413
f. leadership, .578
g. anomia, -.467
h. work skills, -.458
i. junior counselor potential, -.416
j. pre-tent popularity, .492
k. post-tent popularity, .533
l. director's rating, .423
m. average ring toss rank, .452
n. being Spanish, .483